

SESSION 3.7

CALTRANS ITS CABINET TESTING PROTOTYPE EVALUATION

JEFF FORESTER



2070 & ITS CABINET WORKSHOP - AUGUST 2001

ITS CABINET TESTING

- **PHYSICAL INSPECTION**
- **DIAGNOSTIC ACCEPTANCE TESTS**
- **POWER SUPPLY TESTS**
- **ENVIRONMENTAL TESTS**

PHYSICAL INSPECTION

- **ENSURE ALL DELIVERABLES ARE WITH CABINET**
- **PHYSICAL DIMENSIONS ARE CORRECT?**
- **MODULES, TERMINAL BLOCKS AND WIRING ARE PROPERLY LABELED? DO THEY MAKE SENSE?**
- **ENSURE INTERCHANGABILITY BETWEEN MANUFACTURERS**
- **EVALUATE DIFFERENT HOUSING COATINGS**

Graffiti Test

- Black permanent marker - allowed to stand for several days.
- Sprayed with Fantastic All Purpose cleaner.
- Wiped off with no residue.



Input File Test Card

- Tests for proper addressing
- Either 2-channels, or 4-channels
- Switches put call into respective channel



DIAGNOSTIC ACCEPTANCE TESTS

- **BASIC LOOP AROUND PROGRAM (2070)**
 - Tests SIU functionality and proper communications and addressing between inputs and outputs.
- **FULL DIAGNOSTICS**
 - Being developed by Traffic Operations

BASIC SIU TEST PROGRAM

- Sequences through all output phases, indicated by Light Box
- Enabled output is shown on 2070 front panel



POWER SUPPLY TESTS

- **POWER SUPPLY VOLTAGES AND LOAD TESTING**
 - Line and Load Regulation (90 - 135 VAC / 1 - 5 amps)
 - Efficiency
 - Ripple Noise
 - High and Low Temperature

ENVIRONMENTAL TESTS

- **LOAD AND RUN THE CALTRANS TRAFFIC CONTROL SIGNAL PROGRAM (2070)**
- **TEMPERATURE TESTING AT +74 C AND -37 C**
- **2 KVA TEST**

